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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/671,354	09/27/2000	Osamu Okumura	038959.01	8112

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EXAMINER	
TON, MINH TOAN T	
ART UNIT	**PAPER NUMBER**
2871	

DATE MAILED: 12/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/671,354	OKUMURA ET AL.	
	Examiner	Art Unit	
	Toan Ton	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *30,31,33,37,38 and 49-67* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *30,31,33,37,38 and 49-67* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 08/809487.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 30, 33, 37, 49, 52, 56-58 and 60-67 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakazawa et al (US 5736278).

Nakazawa discloses a reflective type color liquid crystal device comprising (see at least Figures 3-5): a first electrode; a second electrode opposing the first electrode; a liquid crystal layer arranged between the first electrode and the second electrode; a dot area formed at an overlapping portion of the first electrode and the second electrode, the dot area including a first section and a second section; a color filter (11,12,13) arranged in the first section; and a layer (e.g., 4) arranged in the second section in which the color filter is not arranged, the layer being substantially transparent.

Nakazawa discloses the layers are formed in the areas between the dot areas.

Nakazawa discloses the layers including acryl or polyamide (col. 8, 2nd paragraph).

The dot (liquid crystal displaying pixel) areas are inherently the light-variable areas, which make transmissivity of the liquid crystal layer possible to vary by applying the voltage between the first electrode and the second electrode.

Nakazawa discloses color filters provided only on a part of the light-variable areas in each dot area, each color filter partially formed substantially in the middle of one dot area (see at least Figures 3-5).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 31, 38, 50-51, 53-55 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakazawa et al as applied to claims 30, 33, 37, 49, 52, 56-58 and 60-67 above.

The use of a black matrix/mask disposed in non-displaying regions for blocking light is common and known in the art for achieving advantages such as high contrast. Nakazawa discloses the use of black matrix/mask. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a black matrix/mask disposed in non-displaying regions, as common and known in the art, for achieving advantages such as high contrast. Furthermore, integrating elements serving multiple/dual function is at least obvious to one of ordinary skill in the art and also a common goal in the art for achieving advantages such as cost-reduction.

Nakazawa discloses the color liquid crystal device comprising the thickness of the color filter and the thickness of the layer being different (see at least Figures 3-4). Therefore, it would

have been at least obvious to one of ordinary skill in the art at the time the invention was made to employ a particular thickness for the color filter and the transparent layer for advantages such as high quality color display device.

The use of active switching element(s) such as thin film transistor(s) is common and known in the art to achieving advantages such as reduced-cross talk. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ active switching element(s) such as thin film transistor(s) is common and known in the art to achieving advantages such as reduced-cross talk.

A typical R/B/G color filter absorbs 1/3 (i.e., 33%) of transmitting light, which overlaps Applicant's range of 15%-45%. Common and known color filters are red, blue, green and cyan filters.

The use of a high contrast ratio is at least common and known in the art for achieving advantages such as high quality display device. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a high contrast ratio such as 15:1 or more, as common and known in the art, for achieving advantages such as high quality display device.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan Ton whose telephone number is (571) 272-2303.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 19, 2005

TOAN TON
PRIMARY EXAMINER